## **Questions & Answers**

## 1. ADMINISTRATIVE QUESTIONS:

- 1.1 What standard agreement is applicable to this RFP? Where are the terms and conditions located?

  Answer: Contracts awarded under this solicitation must meet requirements of the "Standard Terms and Conditions" found online at http://www.energy.ca.gov/contracts/pier.html#piergeneralinfo.
- 1.2 Will workshop materials and presentations be made available online?

  Answer: The workshop material consisting of presentation, list of attendees, and questions and answers raised during workshops, in Sacramento and San Diego, are available online at <a href="http://www.energy.ca.gov/contracts/pier.html#RFP">http://www.energy.ca.gov/contracts/pier.html#RFP</a> 500-10-503.
- 1.3 Will the end results of each project be available to the public?

  Answer: Yes. All projects under this solicitation are required to submit a final report. Upon completion, of the awarded projects, final research reports will be available online at the Energy Commission website. In addition, a fact sheet will be published for each completed project.
- 1.4 Since cost effectiveness is a scoring criterion, can you define it?

  Answer: Cost effectiveness compares the prudence of the project cost with the value of the proposed project and expected benefits.
- 1.5 Can PIER funding be used to purchase equipment and materials? For a demonstration project, can funds be used to rent a large energy storage system for the duration of the project? Would there be a limitation on selling the rented equipment at the end of the project?
  - Answer: PIER funding can be used to purchase equipment and materials. However, the state retains an ownership interest in the equipment purchased with PIER funding. Renting or leasing equipment can only occur if it is in the best interest of the state. Please refer to the Department of General Services' (DGS) State Contract Manual Section 7.62, which discusses a state agency's responsibility to prepare a lease/purchase analysis and obtain DGS approval prior to leasing equipment. In terms of whether the contractor would be restricted in selling leased equipment due to the state retaining an ownership interest, the answer depends upon the type of lease. In a lease-to-own situation, the state would retain an ownership interest in the equipment. In a pure lease situation with no ownership rights, the state would not posses any rights that would restrict the disposition of the equipment. Please note that match funds can be used to purchase or lease equipment without the state obtaining an ownership interest.
- 1.6 Can existing facilities be valued and considered as match funding?

  Yes, existing facilities can be used for match funding. However, the value of the contribution related to the use of existing facilities must meet the requirements as shown under "Match Funding Requirements" on page 8 of the Solicitation.

1.7 Should Bidders submit a separate proposal for each research area or a combined proposal that addresses multiple research areas? How does the page limit apply?

Answer: Bidders must submit a separate and clearly distinct proposal for each research area, should they aim to address more than one research area. The page limit applies to each independent proposal.

1.8 Can U.S. National Labs submit research proposals?

Answer: Yes. However, they will not receive an award unless they can meet the requirements and agree to the terms and conditions of this solicitation, which might be hard for them to do.

The terms and conditions applicable to this solicitation are NOT the terms negotiated by the Department of General Services (DGS) for use with national labs. The included terms are the ones typically used with private entities. National labs may want to consult with their legal departments to make sure that they can agree to these terms prior to preparing a proposal.

Likewise, national labs may find it hard to meet some of the requirements in this solicitation. For example, in direct contracts between state agencies and national labs, the labs do not have to include Disabled Veteran Business Enterprise (DVBE) participation. Under this solicitation, however, all applicants must meet the DVBE requirements.

This situation stems from DGS' decision to no longer allow the Energy Commission to include different terms and conditions for different types of entities in the same solicitation. In past solicitations, the Commission included separate terms and conditions for private entities, the University of California (UC), and national labs because each entity has different legal and administrative requirements.

Now that DGS has restricted the Commission to just one set of terms per solicitation, the Commission typically uses the terms applicable to private entities. The reason for this is that contracting with private entities requires either a competitive solicitation or a non-competitive bid justification. In contrast, state agencies can easily contract directly with public entities without either of these requirements. As a result, the Commission issues solicitations with the private-entity terms, and it separately contracts directly with public entities.

1.9 Please refer to the answers in Question 1.1 for the web link to the terms and conditions for this solicitation. Does the 3 year timeline apply for modeling and analysis projects (Funding Area C)? Is there a per year funding limitation?

Answer: The 3 year project term is the maximum timeline for all research area (A-D). However, the projects can be proposed and completed in a shorter time frame. There is no specific per-year funding limitation, as funds are often expended at varying rates throughout the project duration. However, it is expected that match funds will be expended prior to, or concurrently with, PIER funds over the lifetime of the project.

1.10 What is the Darfur Contracting Act?

Answer: Please see attachment 12 (Darfur Contracting Act) in the solicitation for information and the form required to be submitted with the proposal.

- 1.11 What sort of intellectual property (IP) rights will awardees be able to retain (for competitive advantage) vis-a-vis what IP rights will accrue to the Energy Commission?
  - Answer: For information related to the intellectual property, please refer to "Rights of Parties Regarding Deliverables, Data, and Intellectual property" in Exhibit D (Special Terms and Conditions), which is available as shown in response to Question 1.1.
- 1.12 Please clarify that DVBE must be explicitly noted in the application. Is it required to identify DVBE at the time of proposal submission?
  - Answer: It is required to submit completed Attachments 5 and 6 (Disabled Veteran Business Enterprise Declarations and Bidder Declaration). It is required to identify the DVBE at the time of proposal submission.
- 1.13 What did you mean by "No confidential Information" on a technical proposal? How is it possible for us to submit a strong technical proposal in the absence of our proprietary technical information? Answer: It is the Bidder's responsibility to submit a strong technical proposal without submission of any proprietary information. The bidder may discuss the technology at a higher level than the detailed component level. The reason for this requirement is that the proposals and all submittals become public record after the project award process is completed. However, the winning projects can submit confidential information during project term after getting proper approval from the Energy Commission.
- 1.14 It seems that the RFP is discouraging a response from universities. What if the response is from a university's non-profit foundation? Where do we find the document that must be signed? Answer: Universities are not discouraged from applying, and foundations can apply, but both may find it hard to comply with the requirements and agree to the terms and conditions of this solicitation. No exemptions from the requirements or the terms will be made for universities or foundations. Please refer to the answer to Question 1.8. The document that must be signed is Attachment 1, Application Form.
- 1.15 Can a demonstration project and assessment study be scheduled to begin immediately so that there is adequate time to complete the demonstration and write the final reports? What is the preferred timeline for projects (e.g. assessment period, construction period, demo period)?
  - Answer: The bidder is expected to provide a project assessment justification before major work is performed for the demonstration phase. Additional time up to one year, if needed, to complete the project, can be allowed if the project demonstrates satisfactory progress. The timeline for various tasks depends on each project, and is not predetermined. A number of tasks can overlap within the project's timeframe.
- 1.16 For the proposal, do we need to schedule a review of the Assessment Study with the Energy Commission's contract manager before starting the Demonstration section of the project?
  Yes. The preference will be to have a Critical Project Review to determine the feasibility of proceeding to the demonstration phase.

1.17 Does the demonstration need to be conducted in California, or may it be conducted at a site outside of California?

Answer: The project can be demonstrated within or outside California. However, the project must document that the benefits arising from the successful completion of this project will be available to California's electricity ratepayers.

1.18 Southern California Edison is conducting a storage and wind study under a DOE and PIER grant: <a href="http://www.energy.ca.gov/contracts/PON-08-011\_FOA\_NOPA.PDF">http://www.energy.ca.gov/contracts/PON-08-011\_FOA\_NOPA.PDF</a>. Would an application for storage with wind be considered duplicative of that effort and be rejected?

Answer: No, as long as the new proposal has a different scope of work. We are looking for innovative solutions to various issues for advancement of renewable integration technologies

## 2. RENEWABLE QUESTIONS:

2.1 Is cooling an acceptable storage topic?

Answer: Thermal storage, including cooling technologies is an acceptable research topic as long as the work is performed to address utility-scale renewable energy (equal or greater than 10MW).

- 2.2 Can 1 MW units be up scaled to reach the 10 MW threshold?
  - Answer: Yes. However, the applicant must demonstrate the cost and technology effectiveness for utility-scale application.
- 2.3 Should storage only be considered at the power plant level or is it acceptable to include storage located at distributed sites, potentially including the customer side of the meter?
  - Answer: The storage can be considered at plant-level as well as across region (with clear regional integration). However, the storage at the customer side of the meter is not acceptable.
- 2.4 Is there a preference for CSP with storage versus PV with storage?
  - Answer: We are looking for projects which can be easily and economically duplicated at utility-scale for commercial market. At this time, there may be more CSP projects for the utility-scale application.
- 2.5 Does the demonstration facility have to be new or can an existing facility be used for the project?

  Answer: Both existing and new facilities are acceptable.
- 2.6 How do you compare length of generation among different intermittent generation and storage proposals?
  - Answer: Each proposal has to justify the proposed storage duration for the selected generation.
- 2.7 Can storage capacity be used to meet the 10 MW threshold?
  - Answer: Yes. However, you need to justify the selection of each specific type of storage technology.
- 2.8 Does the proposed demonstration project need to end up with a finished project?

  Answer: No. However, the proposal must demonstrate some clearly defined advancement.

2.9 Is the aim of solar forecasting projects to forecast output for a single plant, or for all solar resources in CA?

Answer: It can be either type as long as it helps the grid accommodate variable output.

2.10 For thermal energy storage modeling projects (Research Area C), should the model be dynamic model or steady state?

Answer: A steady state, dynamic, or combination of both models is acceptable. The type of proposed model should provide optimal improvement in performance and cost of thermal storage system.

2.11 Would a proposal for research area A that involves assessment and demonstration of a repeat unit for a 10 MW scale PV system be considered responsive? In this context, repeat unit means something along the lines of a 20 kW scale solar tracker and a 20 kW battery unit (where 500 units yield 10 MW).

Answer: This type of arrangement will meet the intent of utility-scale solicitation. However, the proposal needs to justify its commercial application.

2.12 Would a comparison of approaches with ultimate results and recommended outcome be an acceptable Proposal format or is PIER looking for a specific technology, concept or approach (or a combination of such) with defined results the desired proposal format?

Answer: The applicant is free to submit a proposal in either format as long as the outcome results in advancement of the renewable technologies.

2.13 Is this RFP looking only for monitoring the environmental variables or to both the environmental and the electrical variables to better understand impacts of renewable resources?

*Answer*. The environmental portion will focus on the environmental benefits and the renewables portion will focus on the electrical benefits.

## 3. Environmental Questions:

3.1 Different types of land have different environmental impacts. Are brown fields, for example, specifically of interest?

Answer. This solicitation is requesting research aimed at innovative utility-scale solar energy technologies, spatial arrays, and methods of installation/maintenance that result in significantly lowered facility footprint and/or land impact. Proposed research projects located on "brown field" sites are acceptable as long as the proposed research addresses a research question relevant to the above statement. It may be more relevant if the research results are transferable to other types of land, including undisturbed areas.

3.2 Is there a preference for research addressing existing or future solar facilities?

Answer. There is no preference for either existing or future facilities.

- 3.3 Is there environmental baseline information for the SEGS projects?
  - Answer: Staff is unsure whether this request is addressing the SEGS Solar One and Two Projects which have been renamed the Calico Solar Project and the Imperial Valley Solar Project, respectively or the already constructed SEGS units at Kramer Junction and Harper Lake. Information on the Calico Solar Project and the Imperial Valley Solar Projects can be found by following links from this web site: <a href="http://www.energy.ca.gov/sitingcases/alphabetical.html">http://www.energy.ca.gov/sitingcases/alphabetical.html</a>. The Energy Commission's Compliance Unit in the Siting, Transmission, and Environmental Protection Division maintains hardcopy files (and possibly some scanned electronic files) for the already constructed SEGS projects. The applicant's Application for Certification and subsequent staff documents contain a summary of environmental information. The raw environmental data is probably only available from the consultant who prepared the Application for Certification.
- 3.4 Does the proposed project have to be a demonstration project?

  Answer. The project does not need to be a demonstration project.
- 3.5 Can you please address specifically, technologies that avoid sensitive or undisturbed land? Answer. Staff is unable to specify technologies.
- 3.6 Does the use of fewer materials used in our case we have few parts, and do not use a railing system for example fall under "lowered facility footprint"?

  Answer. This solicitation is requesting research proposals addressing innovative technologies or strategies that will reduce the environmental footprint (i.e., acreage and/or intensity of habitat disturbance) of utility scale solar power plants. Such technologies or strategies must provide a significant environmental benefit over current or near-term practices.
- 3.7 We are interested in rooftop and ground mounted systems related to Research Area D: Environmental Mitigation for Utility-Scale Solar Energy Technology. I understand from the proposal that it is critical to demonstrate how the proposed project will reduce or result in significantly lowered facility footprint and/or land impact.
  - Answer: Yes. That is correct. We are looking for research that demonstrates how the proposed project will reduce or result in significantly lowered facility footprint and/or land or water impact of Utility-Scale solar energy technology.
- 3.8 If a demonstration project is not identified as a requirement for Research Area D, will an unreleased and untried (to the commercial market) technology be acceptable?
  - Answer: Yes. It is important to note that you must be able to conduct scientifically robust research to demonstrate how this technology will reduce environmental impact.